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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/551,889

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Jens Passoke

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EXAMINER

NEFF, MICHAEL R

ART UNIT

PAPER NUMBER

2611

MAIL DATE

DELIVERY MODE

04/08/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,889	Applicant(s) PASSOKE, JENS	
	Examiner MICHAEL R. NEFF	Art Unit 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/4/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Examiner's Note

1. The Examiner acknowledges that an amendment to the claims was filed on 10/04/2005 wherein claims 1-5 were cancelled by the applicant and new claims 6-11 disclosed. The following is an action on these newly provided claims.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 6-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bristow (US Patent 6,922,449 B1) in view of Whikehart et al. (herein after Whikehart) (US Publication 2002/0187762 A1).

Re claims 6 and 10, Bristow discloses a receiver unit comprising: at least two signal receivers for receiving analog signals (Figure 1 elements 2 and 12; Col. 2 lines 5-32);

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a common analog-digital converter for converting analog signals into digital received signals (Figure 1, element 10; Col. 2 lines 33-35); however Bristow fails to explicitly disclose wherein the system further comprises a digital signal processing unit for the digital received signals; and at least one adder situated at an output of the signal receivers for adding the analog received signals, the adder having an output connected to an input of the analog-digital converter, the digital signal processing unit being configured to separate the added received signals.

This design is however disclosed by Whikehart. Whikehart discloses a multi branch receiver system wherein the system comprises a digital signal processing unit for the digital received signals (Figure 1, element 20); and at least one adder situated at an output of the signal receivers for adding the analog received signals (Figure 1, element 16), the adder having an output connected to an input of the analog-digital converter (Figure 1 element 16 and output to element 18), the digital signal processing unit being configured to separate the added received signals (Figure 1, element 20 'tuner' element).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the multi branch receiver system design as disclosed by Whikehart within the multi channel/multi antenna receiver system as disclosed by Bristow in order to apply the common and well known technologies in order to allow for the multiple channel signals to be processed from a combined to a individual format after passing through the ADC element of the receiver.

Re claim 7, the combined disclosures of Bristow and Whikehart as a whole disclose the receiver unit according to claim 6, Bristow further discloses wherein the signal receivers include mixers for mixing analog receiver units to different intermediate frequencies (Figure 1 elements 6 and 16; Col. 2 lines 5-32).

Re claim 8, the combined disclosures of Bristow and Whikehart as a whole disclose the receiver unit according to claim 6, Bristow further discloses wherein at least one of the signal receivers is configured for mixing an analog received signal to an intermediate frequency (Figure 1; elements 6 and 16), and at least one other of the signal receivers is configured for receiving and filtering one defined receiving frequency band and adding the receiving frequency band to the intermediate frequency signal. (Figure 1 elements 8 and 18; Col. 2 lines 5-32).

Re claim 9, the combined disclosures of Bristow and Whikehart as a whole disclose the receiver unit according to claim 6, Bristow further discloses wherein the signal receivers are for simultaneously receiving analog received signals, at least one of (a) on different channels and (b) according to different transmission standards (Col. 2 lines 5-32).

Re claim 11, the combined disclosures of Bristow and Whikehart as a whole disclose the method according to claim 10, Bristow further discloses wherein the analog signals are radio broadcast signals (Abstract; Col. 1 lines 32-39).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent 6,678,512 B1 Kaminski et al.

Kaminski discloses a receiver portion wherein the output is functionally equivalent to the current application however Kaminski has reduced the system error and processing requirements through elements which eliminate the need for the IF oscillators and mixers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL R. NEFF whose telephone number is (571)270-1848. The examiner can normally be reached on Monday - Friday 8:00am - 4:30pm EST ALT Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on (571)272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MICHAEL R. NEFF/
Examiner, Art Unit 2611
/Shuwang Liu/
Supervisory Patent Examiner, Art Unit 2611